

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claim 6-8 and 26, and ADD new claim 27, as follows.

1. (PREVIOUSLY PRESENTED) An ink-jet printhead comprising:

a substrate which includes an ink chamber where ink is stored, nozzles through which ink in the ink chamber is ejected, and a plurality of pads which apply an electrical signal to the substrate to generate droplets in the ink chamber;

a flexible printed circuit (FPC) cable which includes a conductor corresponding to each of the pads, each conductor having bonding portions at front ends thereof; and

connection members which electrically connect the pads to the bonding portions,

wherein a connection member is bonded to a corresponding pad of the substrate and/or a corresponding bonding portion of the FPC by hot pressure welding,

wherein the FPC includes a protection layer, protecting the conductor, having an opening through which the bonding portions are exposed is provided in the protection layer, and

wherein the opening creates a notch, between the protection layer and the bonding portions of the conductor, particularly for permitting the hot pressure welding of the connector and the bonding portions.

2-5. (CANCELED)

6. (CURRENTLY AMENDED) The printhead of claim 21, wherein one end of each pad of the substrate and one end of each connection member are bonded to each other by hot pressure welding or soldering.

7. (CURRENTLY AMENDED) The printhead of claim 21, wherein ends of the bonding portions of the FPC and the other end of each connection member are bonded to each other by hot pressure welding or soldering.

8. (CURRENTLY AMENDED) The printhead of claim 21, wherein each connection member is bonded to one end of each pad of the substrate and ends of the bonding portions of the FPC by hot pressure welding.

9. (CANCELED)

10. (PREVIOUSLY PRESENTED) The ink-jet printhead according to claim 14, wherein the connection member is bonded to the bonding pad and the bonding portion by hot pressure welding.

11. (ORIGINAL) The ink-jet printhead according to claim 10, wherein the hot pressure welding employs a bonding tool and a thermal pressing method.

12. (PREVIOUSLY PRESENTED) The ink-jet printhead according to claim 14, wherein the FPC comprises a cable surrounding the substrate.

13. (PREVIOUSLY PRESENTED) The ink-jet printhead according to claim 14, further comprising nozzles on the substrate.

14. (PREVIOUSLY PRESENTED) An ink-jet printhead, comprising:
a substrate including a first conductor having a bonding pad;
a Flexible Printed Circuit (FPC) having a second conductor having a bonding portion corresponding to the bonding pad;
a connection member, wherein the connection member electrically connects the bonding pad of the first conductor to the bonding portion of the second conductor and the connection member is bonded to the bonding pad by hot pressure welding;
upper and lower protection layers protecting the second conductor; and
an opening in the upper protection layer through which the bonding portion is exposed, such that the opening creates a notch, between the upper protection layer and the bonding portion of the second conductor, particularly for permitting the hot pressure welding of the second conductor and the bonding portion.

15. (CANCELED)

16. (PREVIOUSLY PRESENTED) The ink-jet printhead according to claim 14, wherein the connection member is substantially ribbon shaped.

17. (PREVIOUSLY PRESENTED) The ink-jet printhead according to claim 14, wherein the connection member is perforated.

18. (PREVIOUSLY PRESENTED) The ink-jet printhead according to claim 14, further comprising a plurality of connection members.

19. (PREVIOUSLY PRESENTED) The ink-jet printhead according to claim 18, further comprising an insulating connection ribbon to fix the plurality of connection members in a parallel arrangement.

20. (WITHDRAWN) A method of fusing a connection member to a bonding pad of a substrate, comprising:

opening an opening in a protective layer above the bonding pad of the substrate; and
hot pressure welding the connection member to the bonding pad of the substrate.

21. (WITHDRAWN) The method according to claim 20, further comprising hot pressure welding the connection member to a bonding portion of a Flexible Printed Circuit (FPC).

22. (WITHDRAWN) The method according to claim 21, further comprising soldering the connection member to the bonding pad of the substrate and the bonding portion of the FPC.

23. (WITHDRAWN) The method according to claim 21, wherein the operation of opening comprises processing by an excimer laser.

24. (WITHDRAWN) The method according to claim 23, wherein the processing further comprises varying a pulse of the laser to prevent melting.

25. (WITHDRAWN) The method according to claim 23, wherein the processing further comprises using an interruptive method, the interruptive method comprising:

changing a pulse cycle of the laser; and
adjusting a time interval of the pulse of the laser.

26. (CURRENTLY AMENDED) The method according to claim 20, wherein the hot pressure welding comprises:

pressing a bonding tool on a welding object; and
heating an electrical heating layer in a gap at an end of the bonding tool to approximately 300 – 500 degrees Celseius.

27. (NEW) The apparatus according to claim 1, wherein the hot pressure welding includes a heating of an heating end of a bonding tool to approximately 300 – 500 degrees Celsius to bond the connection member directly to the corresponding pad of the substrate and/or the corresponding bonding portion of the FPC.